REMARKS/ARGUMENTS

In this amendment, claims 6, 7, 13, 14, 16-19, 21-23, 30, 33-36, 43, and 44 have been canceled and new claims 79-88 have been added, which leaves claims 1-5, 8-12, 15, 20, 24-29, 31, 32, 37-42, and 45-88 pending and at issue.

Support for the amendments to claims 1, 5, 9, 12, 20, 24, 32, 37-39, 45-47, 52, 56, 64, 67-69, and 76 and for new claims 79-88 can be found in the specification at least as follows: means for removably attaching in paragraph 34; passive and active point sources in paragraphs 41-44; an anatomical structure spaced interiorly away from an outer surface of a body in paragraph 26; tracking the position without a reference device invasively affixed to the body in paragraph 36, injecting a sonic reflective ball in paragraph 41; differential and arbitrary initial distance maps in paragraphs 38-39; calibrating positional devices in paragraph 40; and a retrieval device comprising a guide wire, a guide fiber, or a tubular attachment in paragraphs 49 and 51. No new matter has been introduced by the amendments.

With regard to the provisional double patenting rejections in view of co-pending application serial number 10/798,677 alone or in combination with other references, the examiner is requested to hold these rejections in abeyance until allowable subject matter has been indicated in either the present application or application serial number 10/798,677.

Applicants traverse the rejection of claims 1-5, 24, 27-29, 31, 32, 37-42, and 56-62 under 35 U.S.C. §102(b) as anticipated by Bova et al. U.S. Patent No. 6,390,982 ("Bova"). Further, applicants traverse the rejection of claims 9-12, 15, 20, 25, 26, 45-55, 63-78 under 35 U.S.C. §103(a) as obvious over Bova in view of one or more of Smith et al. U.S. Application No. 2004/0097807 ("Smith"), Danisch U.S. Patent No. 5,321,257 ("Danisch"), Schneider U.S. Patent No. 6,073,043 ("Schneider"), Bartlett U.S. Patent No. 5,441,502, Sirimanne et al. U.S. Patent No. 6,356,782 ("Sirimanne"), and Cosman U.S. Patent No. 6,405,072 ("Cosman").

The undersigned thanks Examiner Chao for the courtesies extended during a telephonic interview on December 17, 2007, between the examiner, Thomas Riley, and the undersigned, during which the parties discussed the patentability of the claims in light of the references and no agreement

was reached. The following summarizes and amplifies the substance of the interview.

The claims at issue have been amended as discussed during the interview to distinguish over Bova. Particularly, Bova does not disclose or suggest means for removably attaching the substrate to an outer surface of a body, as recited by claims 1-5, 8-12, 15, 20, 24-29, 31, 32, 37-42, 45-55, 87, and 88 or the step of attaching a substrate in a removable manner to an outer surface of the body, as recited by claims 56-86.

In fact, Bova discloses an ultrasound device 22 that is merely placed in movable contact against the body of a patient. However, the ultrasound device 22 is not attached to the body and, likewise, does not include any structure for attaching the ultrasound to the body. Further, Bova does not suggest any reason or desire to attach the ultrasound device 22 to the body of the patient. Therefore, Bova does not anticipate or render obvious any of the claims at issue.

Although Smith does disclose adhesive to fix a membrane to a patient or to an ultrasound device, only one side of the membrane has adhesive to fix to one of the patient or the ultrasound device. The opposite side of the membrane, however, is lubricous in order to allow for relative movement between the patient and ultrasound device. Thus, Smith actually teaches away from attaching an ultrasound to the body of a patient.

Therefore, Bova and Smith, either alone or in combination, do not disclose or suggest a system as recited in claims 1-5, 8-12, 15, 20, 24-29, 31, 32, 37-42, 45-55, 87, and 88 including a means for removably attaching or a method as recited in claims 56-86 including the step of attaching.

In addition to the reasons provided herein-above with regard to all of the claims at issue, the following are also reasons why individual claims are allowable over the applied art.

None of the applied references discloses or suggests a system, as recited in claims 1-5, 8-12, and 15, including an ultrasonic imaging device and a passive point source adapted to be disposed adjacent an anatomical structure.

In fact, Bova only discloses a single ultrasound probe that is movably placed against an outer surface of the body of a patient. While Sirimanne does disclose a passive biopsy cavity-marking body, there is no motivation in the prior art to combine Bova with Sirimanne without the benefit of the teachings of the present application and hindsight reconstruction. Further, Bova teaches away

from such a combination because Bova is directed to a non-invasive method of tracking organs inside a patient's body, whereas Sirimanne requires a major invasion of the patient's body in order to form a cavity in the patient before the cavity-marking bodies could be placed inside such cavity. Therefore, it would not have been obvious to modify Bova with Sirimanne, because such modification would result in a more invasive procedure on the patient and thereby render Bova unsatisfactory for its intended purpose. *See* MPEP § 2143.01 (V)

Additionally, the applied references do not disclose or suggest a system as recited by claims 24-29, 31, 32, 37, and 38 including an ultrasonic imaging device and an active point source adapted to be disposed adjacent an anatomical structure. Applicants traverse the suggestion in the Office action that Bova or Sirimanne disclose an active point source. Rather, as stated above, Bova only discloses a single ultrasound probe placed against an outer surface of a body, and Sirimanne only discloses a passive biopsy cavity-marking body. Therefore, Bova and Sirimanne do not disclose or suggest the active point source of the above noted claims.

Further, it would not have been obvious to modify Bova to replace the ultrasound probe with a magnetic transmitter, as recited by claims 39-42, 45, 46, and 87 or a fiber optic device, as recited by claims 47-55 and 88, because to do so would render Bova unsatisfactory for its intended purpose. MPEP §2143.01(V); *see also In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984). Specifically, one of the intended purposes of Bova "is to provide 3D imaging data," which is accomplished though use of a 3D ultrasound probe. Bova column 3, lines 34-35; *see also* column 2, lines 42-50; column 6, lines 25-27. However, the magnetic sensor of Schneider and the fiber optic device of Danisch are only able to provide position and orientation information, i.e., Schneider and Dansich do not disclose 3D imaging data. Therefore, it would not have been obvious to modify Bova with Schneider or Danisch, because such modifications would render Bova unsatisfactory for its intended purpose of providing the required 3D imaging data. *See* MPEP § 2143.01 (V)

Still further, none of the applied references discloses or suggests a system or method as recited by claims 20, 39-42, 45, 75, 78, 87, and 88 including a retrieval device. Specifically, applicants traverse the mischaracterization in the Office action that Danisch discloses a retrieval device in FIG. 1 at an item 16. Rather, the item 16 in FIG. 1 of Dansich is actually an electronic

measuring system, or strain gauge for measuring small deformation on the surface of structural I-beams, not a retrieval device. Further, there is no suggestion or reason in the applied references for using the measuring system of Danish as any type of retrieval device, let alone a retrieval device as recited by claims 20, 39-42, 45, 75, 78, 87, and 88.

Therefore, for these additional reasons, each of the above noted claims should be allowable over the references.

Referring now to new claims 81-86, none of the applied references disclose or suggest creating a differential distance map or establishing an arbitrary initial distance map, as recited variously by claims 81-83, using a calibration object, such as a needle with an ultrasonic tip, as recited variously by claims 84 and 85, or the step of determining a position of source transducers, as recited by claim 86.

For at least these reasons, applicants respectfully request reconsideration and allowance of the foregoing claims. If there are any issues remaining that can be resolved by telephone, the examiner is invited to call the undersigned.

Deposit Account Authorization

The Commissioner is hereby authorized to charge any deficiency in any amount enclosed or any additional fees, which may be required during the pendency of this application under 37 CFR 1.16 or 1.17, except issue fees, to Deposit Account No. 50-1903.

Respectfully submitted,

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